A HAZARD TO MOTHS ON THE LOZERE MASSIF

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I would like to report the presence of a gigantic moth trap in the Massif Central in France which is presumably having a deleterious effect on moth populations. It is in fact a new tourist attraction at a newly constructed 'aire', or motorway service station—the Aire de Lozère at St Chély d'Apcher, north-west of Mende in the department of Lozère. This is on the new A75 autoroute which links Clermont Ferrand with (eventually—when more habitat is cleared) Millau, Lodève and thus to Spain. The site has hundreds of lights glaring into the night sky. You don't have to stop to see this spectacle; it's visible as you pass on the autoroute. And this is in addition to the usual lights of any normal service station. Moths which are attracted to lights find it irresistible.

The autoroute authorities obviously thought fit to construct an aire where picnickers would get a taste of the historic countryside through which they are travelling, and decided to erect 100 granite pillars (each about 3 m tall), geometrically laid out in a perfect square—covering about 0.8 ha. The local countryside does have plenty of similar-looking prehistoric menhirs, but not in such concentration. Figure 1 gives an overview of the site.

Each pillar is illuminated at night by two 70-W tungsten high-energy lamps which are sunk in the ground and which point nearly vertically against the pillars. Thus

Fig. 1. Aire de Lozère granite 'menhirs' and lamps.

there are 200 lights each pointing upwards into the night sky. The locality is thinly forested and is at about 1000 m.

Moths are clearly drawn to this site every night. I was alerted to the presence of huge numbers of moths (hawk-moths were described) by friends who happened to stop in mid-August. In early September I stopped there to assess the situation. The moth carnage was all too apparent and appalling. Scores of moths and moth remains littered the ground. Hawkmoths rested on most of the pillars. They were to be found in the grass around each pillar, and were squashed on the drive-in areas. Wings of many other moths littered the ground where the local birds had soon learnt that easy pickings were to be had every morning. The pillars were pretty unsavoury places to picnic around, since each pillar had been used by dogs in lieu of trees, and there was a general lack of refuse bins etc. The carnage of moths was not very pleasant either, and knowing the disgust that many people have of 'bugs', these were pretty unsavoury places for tourists.

A calamity has obviously befallen the resident and itinerant moths of the area. The situation of these glaring lights on top of a plateau over which migrants have to pass must surely have its effect on luring species which otherwise might have enjoyed a few hundred more miles to fly. The sight of so many sphingids being drawn to their destruction was distressing. And it clearly is happening every night of the year. Moths which arrive during the night remain inactive in the day, if they survive predators, man and car, and remain around the lights at dusk when the lights come on again.

The environmental impact of these bright lights has possibly been very severe in this first year that the aire was opened (1995). This is because moths will have been drawn exhaustively from the local pool of species, apart from drawing on the

Fig. 2. The Clifden nonpareil, *Catocala fraxini*.

migratory stream of moths which pass overhead. In such an interesting part of the rural countryside I imagine that the impact on moths will continue, especially on migrants. I am not aware of any study on the impact of lights on insects (but would be pleased to learn of any); however I did draw attention to powerful arc lights at Orly airport and their impact on beetle movement (Feltwell, 1967).

The main species found on the pillars were the convolulus hawkmoth *Agrius convolvuli* (L.) and the pine hawk-moth *Hyloicus pinastri* (L.), copper underwings *Amphipyra pyramidea* (L.) or *A. berbera* Rungs (specimens were not collected), broad-bordered yellow underwings *Noctua fimbriata* (Schreb.), angle shades *Phlogophora meticulosa* (L.), as well as various prominents, thorns and footmen. Perhaps the most interesting moths found during my very short stay were three specimens of the Clifden nonpareil *Catocala fraxini* (L.) which is an increasingly rare and localized moth in Europe (Figure 2); it is a scarce immigrant to Britain, several having been recorded in 1995.

Acknowledgements

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Reference

Feltwell, J. 1967. Bats, beetles and bees. *Amat. Entomologist's Soc. Bull.* **26**: 13–14.

SHORT COMMUNICATIONS

***Helops caeruleus* (L.) (Coleoptera: Tenebrionidae) in south-east London.**—I was surprised to come across a single specimen of this local beetle on a wooded bank behind some derelict factories on Blackheath Hill (TQ383766; VC 16, West Kent) on 3.x.95. It was sheltering under the loose bark of a small sycamore branch, less than 25 mm in diameter, about 1.5 metres from the trunk. Although known from some urban areas, this beetle is predominantly coastal (Hyman & Parsons, 1992).

The precipitously steep slope on Blackheath Hill is in danger of collapse and several of the sycamore trees lean precariously. A few large logs showed signs of beetle larvae boring within them, but whether these trunks were fallen trees or had been dumped, together with much other rubbish and spoil, is difficult to determine. It is possible that the beetle was introduced to the site if the timber had been tipped there.

I have previously found this Notable-B beetle in sodden drift-wood washed up on the Chichester Harbour saltmarsh at West Itchenor, West Sussex (SZ7899), on 11.ii.78 and in a pile of old railway sleepers near the gravel pits at Rye Harbour, East Sussex (TQ9419), on 26.viii.81.—Richard A. Jones, 13 Bellwood Road, Nunhead, London SE15 3DE.

Reference

Hyman, P. S. & Parsons, M. S. 1992. *A review of the scarce and threatened Coleoptera of Great Britain. Part 1.* UK Nature Conservation no 3. Joint Nature Conservation Committee, Peterborough. p. 415.